## **SUMMARY**

Waste Management consists of the Solid Waste Storage and Disposal, Project Baseline Summary (PBS) WM03, Work Breakdown Structure (WBS) 1.2.1; Solid Waste Treatment, PBS WM04, WBS 1.2.2; Liquid Effluents - 200 Area, PBS WM05, WBS 1.2.3.1; and the Waste Encapsulation and Storage Facility, PBS TP02, WBS 1.4.2.

PBS WM05 is divided between WBS 1.2.3.1, Liquid Effluents (200 LEF) and WBS 1.2.3.2, 310 TEDF/340 Facility (300 LEF). The 310 TEDF/340 Facility work scope is now included in the River Corridor Project, whereas the Liquid Effluents (200 LEF) work scope has remained in Waste Management. For the purpose of performance analysis, PBS WM05 is reported in its entirety in the Waste Management Project, which has the majority of the work scope and funding.

NOTE: Unless otherwise noted, the Safety, Conduct of Operations, Milestone Achievement, and Cost/Schedule Date contained herein is as of March 31, 2000. Other information is updated as noted.

The follow up visit for certification of the Hanford Site for characterization, certification and shipment of TransUranic (TRU) wastes to the Waste Isolation Pilot Plant (WIPP) was completed. All five Corrective Action Reports (CARs) have been closed and are in preparation for final signature and transmittal to the Carlsbad Area Office (CAO). The Lead Auditor will submit a letter to CAO recommending the Hanford Site be certified for all retrievably stored debris wastes. CAO intends to submit the final Hanford audit report to the New Mexico Environment Department (NMED) on April 28, 2000. Shipment of transuranic waste to WIPP will be scheduled as soon as practicable following NMED/CAO notification.

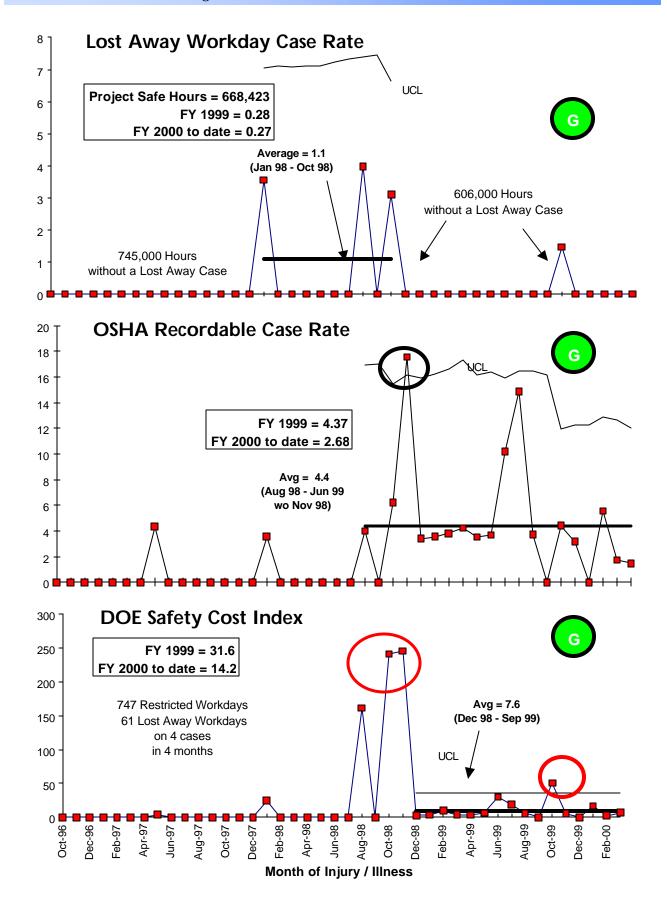
Fiscal-year-to-date milestone performance (EA, DOE-HQ and RL) shows that one of one milestones (100 percent) were completed on or ahead of schedule. Overall Project performance continues to be excellent. Cost and schedule goals are on track to be met.

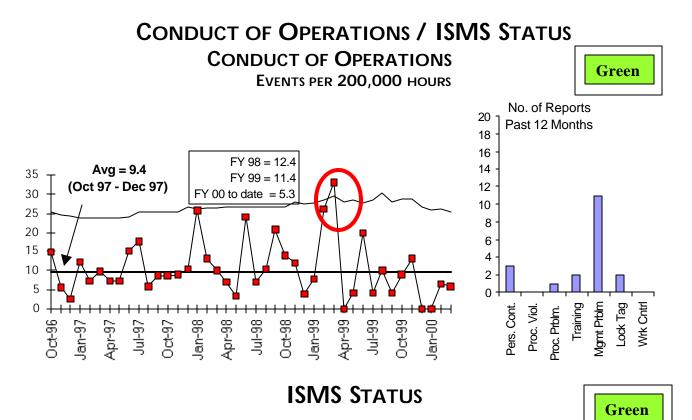
# **A**CCOMPLISHMENTS

- Disposed of 106,600 ft<sup>3</sup> (3000m<sup>3</sup>) (FYTD) of Low Level Waste (LLW) in the burial grounds, as planned.
- Initiated the 242A Evaporator campaign in support of RPP.

# **SAFETY**

The project's safety rates are stable. The October 1999 Lost Away Case was a severe Acid Burn injury. However, this has been the only lost away workday case in 17 months. The project has exceeded the 668,000 safe hours.





#### **Completed activities:**

- Completed the appendices for Waste Management Project (WMP) / Analytical Services
   Project (ASP) which are a part of the FH System Description (FH MP-003). The System
   Description (SD) is the base document being assessed by the DOE Phase I Verification Team.
- The ISMS Self-Assessment data were combined into 22 groupings and 27 actions. Some are scheduled for completion before the end of Phase 1, some before the end of Phase II and some before the end of FY 2001.
- Training Session 4, "ISMS Verification and Your Role," is being finalized and will be presented to all employees before the start of Phase II verification.
- Completed the Authorization Agreements with one minor exception, which is being worked and should be complete by the end of Phase I verification.
- ISMS Workshop III complete.

#### **Planned Actions:**

- Complete Training Session 4 (ISMS Verification and Your Role)
- Revise and issue procedures and plans (based on Self-Assessment activity)
- Respond as necessary to Verification Team's findings regarding the SD's.
- Prepare and implement review process (including Senior Management Review Board) for Declaration of Readiness
- Declare Readiness
- Generate & implement out-year plan to sustain and maintain ISMS effort

# Breakthroughs / Opportunities for Improvement

No Breakthroughs or Opportunities for Improvement are identified at this time.

## **UPCOMING ACTIVITIES**

**WIPP Certification and Waste Shipments**— Complete Waste Isolation Pilot Project (WIPP) Certification of Hanford's TransUranic (TRU) Project and initiate TRU shipments in May 2000.

242A Evaporator Operations 3/4 Complete the 242-A Evaporator Campaign in May 2000 in support of the River Protection Project.

**RH TRU PMP** — Issue Project Management Plan (PMP) for RH TRU in June 2000 to meet M-91 milestone.

MLLW Treatment — Treat 1,160 cubic meters (includes 100 cubic meters stretch) of Mixed Low-Level Waste (MLLW) at Allied Technology Group (ATG) by August 2000; dispose of the Land Disposal Restriction compliant waste by September 2000.

**Suspect TRU Waste Retrieval** — Retrieve 425 drums of suspect TRU waste from the Low-Level Burial Grounds by September 2000.

Accelerate Readiness to Receive Spent Nuclear Fuel K Basin Sludge — Clear three sections of the T Plant Canyon deck in FY 2000 and complete entire deck clearing by FY 2001. Complete Project Execution Plan and Conceptual Design Document for removal of Shippingport Fuel from T Plant in FY 2000.

# COST PERFORMANCE (\$M):

	BCWP	ACWP	VARIANCE
Waste Management	\$48.6	\$48.6	\$0.0

The cost variance is zero. Further information at the PBS level can be found in the following Cost Variance Analysis details.

# SCHEDULE PERFORMANCE (\$M):

	BCWP	BCWS	VARIANCE
Waste Management	\$48.6	\$51.4	- \$2.8

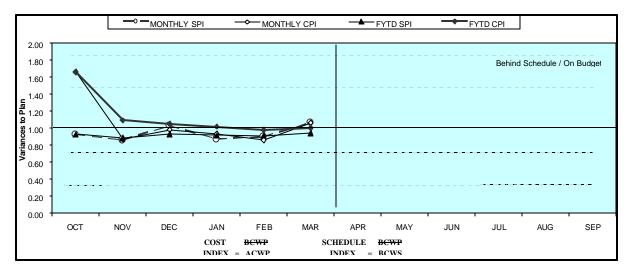
The \$2.8 million (5 percent) unfavorable schedule variance is within established thresholds. Further information at the PBS level can be found in the following Schedule Variance Analysis details.

# FY 2000 Cost/Schedule Performance – All Fund Types Cumulative to Date Status – (\$000)

			FYTD										
	Bv PBS	I	BCWS		BCWP		ACWP		sv	%	cv	%	PEM
PBS WM03 WBS 1.2.1	Solid Waste Storage & Disposal	\$	17,658	\$	17,601	\$	16,501	\$	(57)	0%	\$ 1,101	6%	\$ 36,356
PBS WM04 WBS 1.2.2	Solid Waste Treatment	\$	13,554	\$	12,397	\$	14,252	\$	(1,157)	-9%	\$ (1,855)	-15%	\$ 30,124
PBS WM05* WBS 1.2.3	Liquid Effluents - 200/300 Area	\$	13,578	\$	12,923	\$	11,888	\$	(655)	-5%	\$ 1,035	8%	\$ 29,267
PBS TP02 WBS 1.4.2	WESF	\$	6,614	\$	5,688	\$	5,946	\$	(926)	-14%	\$ (258)	-5%	\$ 14,336
	Total	\$	51,404	\$	48,609	\$	48,586	\$	(2,795)	-5%	\$ 23	0%	\$ 110,082

<sup>\*</sup> PBS WM05 includes the 300 Area Liquid Effluent, which is part of the River Corridor Project.

# COST/SCHEDULE PERFORMANCE INDICES (MARCH 2000 AND FYTD)



FV 2000	OCT	NOV	DEC	IAN	FFR	MAR	ΔPR	MAV	IIIN	ш	AUG	SEP
MONTHI Y SPI	0.93	0.86	1.03	0.88	0.90	1.07						-
MONTHLY CPI	1.66	0.87	0.98	0.94	0.86	1.07						
FYTD SPI	0.93	0.89	0.93	0.92	0.91	0.95						
FYTD CPI	1.66	1.09	1.05	1.02	0.98	1.00						
MONTHLY BCWS	\$ 6.641	\$ 9.616	\$ 7.269	\$ 8.331	\$ 8.862	\$ 10.686	\$ 8.804	\$ 10.979	\$ 8.170	\$ 8.091	\$ 10.757	\$ 11.877
MONTHI Y RCWP	\$ 6.163	\$ 8.277	\$ 7,499	\$ 7.291	\$ 7.973	\$ 11.406			·	·		
MONTHLY ACWP	\$ 3,703	\$ 9.520	\$ 7.619	\$ 7.789	\$ 9.270	\$ 10.685						
FYTD RCWS	\$ 6.641	\$ 16.257	\$ 23.526	\$ 31.857	\$40.719	\$ 51,404	\$60.208	\$71.187	\$79,357	\$87,448	\$98,206	\$110.082
FYTD BCWP	\$ 6.163	\$ 14.440	\$ 21,939	\$ 29.230	\$37,203	\$ 48,609						
EVTD ACWP	\$ 3,703	\$ 13.223	\$ 20.842	\$ 28.631	\$37,901	\$ 48.586						

# COST VARIANCE ANALYSIS: (\$0.0M)

#### WBS/PBS <u>Title</u>

#### 1.2.1/WM03 Solid Waste Storage & Disposal

**Description/Cause:** The favorable cost variance of \$1.1M (6 percent) is within the established

threshold.

**Impact:** No impact.

**Corrective Action:** No corrective action required.

#### 1.2.2/WM04 Solid Waste Treatment

**Description/Cause:** The unfavorable cost variance of \$1.9M (15 percent) is due to Canyon Deck Clean Off workscope being performed under an Advanced Work Authorization (AWA) for T Plant support to accelerated SNF sludge removal. In addition, there are retooling and TRU project recertification costs caused by the new WIPP permit changes.

**Impact:** No impact.

**Corrective Action:** A BCR has been submitted to reflect the additional workscope for T Plant and the TRU Project.

#### PHMC Environmental Management Performance Report – May 2000 Section B: 1 – Waste Management

1.2.3.1/WM05 Liquid Effluents

**Description/Cause:** The favorable cost variance of \$1.0M (8 percent) is within the established

threshold.

**Impact:** No impact.

**Corrective Action:** No corrective action required.

1.4.2/TP02 WESF

**Description/Cause:** The unfavorable cost variance of \$0.3M (5 percent) is due to unplanned activities

for the Ultrasonic Test (UT) of Cesium capsules and electrical system upgrades.

**Impact:** No impact.

**Corrective Action:** The variance will be managed in the Corrective Maintenance budget.

# SCHEDULE VARIANCE ANALYSIS: (- \$2.8M)

#### WBS/PBS Title

#### 1.2.1/ WM03 Solid Waste Storage & Disposal

**Description** / Cause: The unfavorable schedule variance is less than 1%, which is within the established

threshold.

**Impact:** No Impact.

**Corrective Action:** No corrective action required.

#### 1.2.2/ WM04 Solid Waste Treatment

**Description /Cause:** The unfavorable schedule variance of \$1.2M (9% percent) is due to the delay in

TRU production and shipments, which is a result of WIPP permit changes and

re-certification. MLLW treatment is behind schedule due to ATG not completing construction on their facility as scheduled.

**Impact:** No Impact.

**Corrective Action:** ATG processing began in late December 1999. The schedule will be recovered. TRU production is in the process of rebaselining to resolve WIPP certification audit comments and

reworking the shipment schedule.

#### 1.2.3.1/ WM05 Liquid Effluents

**Description /Cause:** The unfavorable schedule variance of \$0.7M (5% percent) is within the

established thresholds. **Impact:** No Impact.

**Corrective Action**: No corrective action required.

#### 1.4.2/ TP02 WESF

**Description /Cause:** The unfavorable schedule variance of \$0.9M (14% percent) is due to the deferral

of the FSAR to FY 2002 to resolve DOE funding reductions.

**Impact:** No Impact.

**Corrective Action:** A BCR has been approved and will be implemented in the April baseline.

# ISSUES TECHNICAL ISSUES

Nothing to report at this time.

# DOE/REGULATOR/EXTERNAL ISSUES

The Waste Management Programmatic Environmental Impact Statement (PEIS) was issued on February 25, 2000. These Records of Decision (ROD) for LLW and MLLW will affect Hanford's disposal role for the Complex and the ROD outcomes may have a significant impact on disposal volumes and rates at Hanford. DOE-HQ and WDOE negotiations continue; impacts depend upon results of these negotiations.

Certification of Hanford's TRU Project is necessary to initiate waste shipment to WIPP. Continue working with the Carlsbad Area Office, the Environmental Protection Agency (EPA) and the New Mexico Environment Department (NMED) to achieve WIPP certification of Hanford's TRU Project and initiate waste shipment to WIPP.

The State of Washington Department of Ecology issued a Final Determination (FD) regarding the "recent" dispute over the scope of the annual Land Disposal Restriction (LDR) report and TPA Milestone M-26-01. This FD contains a number of requirements for "improvement" of the LDR report, i.e. format and content changes. DOE-RL subsequently issued an advanced work authorization to FH to complete an Implementation Plan and Baseline Change Request for a Hanford Mixed Waste (MW) Management Program and including the Final Determination requirements in that program. Progress to date includes:

- Conducting multi-contractor team meetings to define scope and issues associated with this
  effort.
- Drafted definition of "waste stream" for inclusion in the LDR report and MW program.
- Defined path forward, budget estimate and schedule for development of the implementation plan.
- Drafted white paper regarding the proposed scope for both the 2000 and 2001 LDR submittals.
- Initiated preparation of Basis of Estimates (BOEs) for proposed new scope.

# BASELINE CHANGE REQUESTS CURRENTLY IN PROCESS (\$000)

		· · · · · · · · · · · · · · · · · · ·		-					
PROJECT CHANGE NUMBER	DATE ORIGIN.	BCR TITLE	FY00 COST IMPACT \$000	SCH	тесн	DATE TO CCB	CCB APR'VD	RL APR'VD	CURRENT STATUS
		Waste Management FY 2000 Mandated							
WM-2000-002	1/5/00	Funds Reduction	-\$3,042			02/17/00	03/29/00		At DOE-RL
FSP-2000-018	1/25/00	WESF Mandated Funds Reduction	-\$1,100			02/29/00	02/29/00		Approved
		T-Plant Canyon Deck Clean off and PWR							**
WM-2000-003	2/8/00	Fuel Removal	\$3,085			4/13/200	04/13/00		At DOE-RL
WM-2000-004	2/8/00	WMP Stretch Goals	\$0			TBD			Draft at DOE-RL
WM-2000-0005	3/21/00	WMP FY 2000 Repricing Impacts	\$653			TBD			Draft at DOE-RL
FSP-2000-030	3/21/00	WMP FY 2000 Repricing Impacts	(\$653)			TBD			Draft at DOE-RL
		ADVANCE WO	RK AUTHO	RIZAT	IONS				
		T Plant Canyon Deck cleanout/PWR Fuel							Acceleration of
AWA	2/24/00	Removal	\$1,650					04/06/00	scope
									Acceleration of
AWA	2/25/00	TRU Retrieval/TRU PMP	\$555					04/06/00	scope

# Waste Management – WBS 1.2 MILESTONE ACHIEVEMENT

	F	ISCAL YEA	R-TO-DATE	3	REMAI			
MILESTONE TYPE	Completed Early	Completed On Schedule	Completed Late	Overdue	Forecast Early	Forecast On Schedule	Forecast Late	TOTAL FY 2000
Enforceable Agreement	1	0	0	0	0	1	0	2
DOE-HO	0	0	0	0	0	0	0	0
RL	0	0	0	0	0	9	0	9
Total Project	1	0	0	0	0	10	0	11

#### **Tri-Party Agreement / EA Milestones**

Number	Milestone Title	Status
M-91-03 (WMH-00- 001)	Issue TRU/TRUM Waste PMP	due 06/30/00 — On schedule (stretch)
M-91-04 (A2J-00-001)	Complete Construction of CH TRU/TRUM Retrieval Facility	due 09/29/00 — DOE-RL issued a letter to Ecology on February 29, 2000 documenting closure of the TPA milestone as retrieval has been initiated and is planned to continue, even without construction of Project W-113 facilities.

#### **DNFSB Commitments**

Nothing to report.	

# MILESTONE EXCEPTION REPORT

Baseline Forecast

Number/WBS Level Milestone Title Date Date

OVERDUE - 0

FORECAST LATE - 0

**FY 1999 OVERDUE - 1** 

**TRP-98-709 RL** Complete Hot Cell Deactivation 03/31/99 09/30/00

**1.4.2** WESF Facility (A-E)

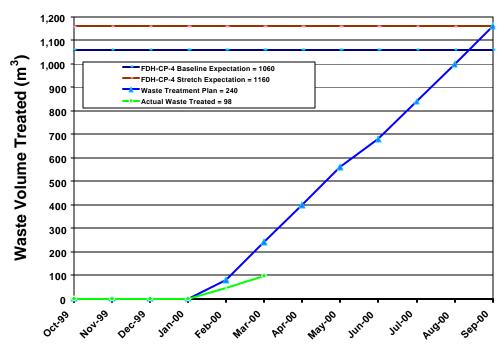
**Cause:** This milestone is not complete due to not being supported at the current funding level.

**Impact:** No overall impact is expected.

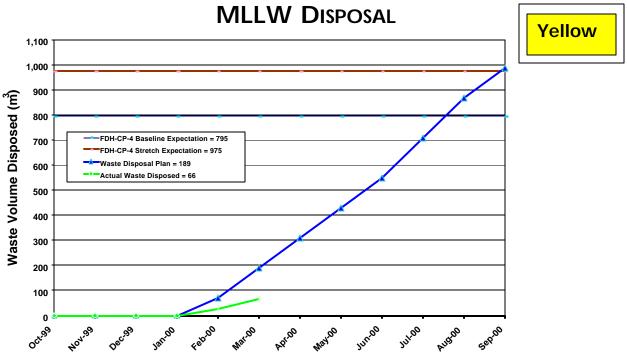
**Corrective Action:** Return-on Investment (ROI) funding has been identified for this work scope and a new forecasted completion date of September 30, 2000 established.



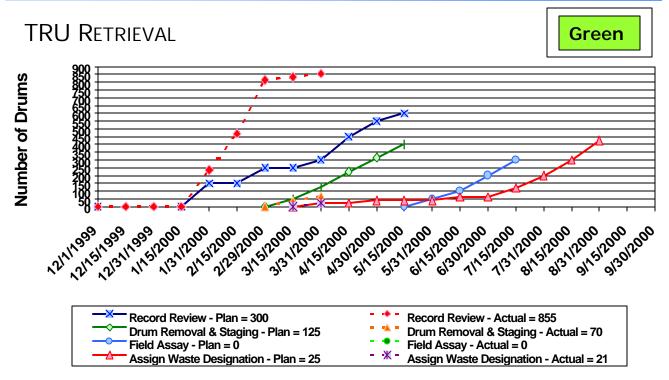
Yellow



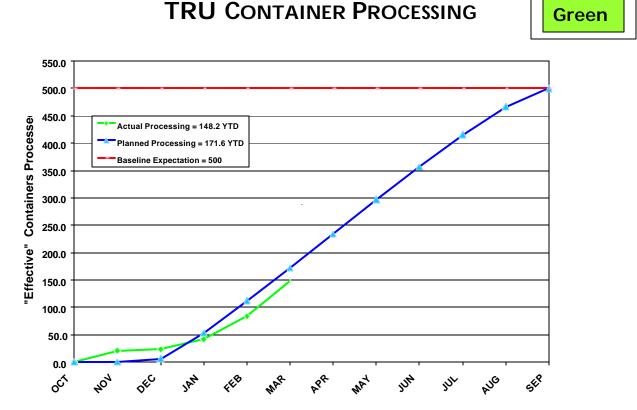
**Action Plans:** Reduced to yellow this month due to being significantly behind schedule. Corrective actions are in place with the performing subcontractor to completely recover schedule (additional personnel assigned).



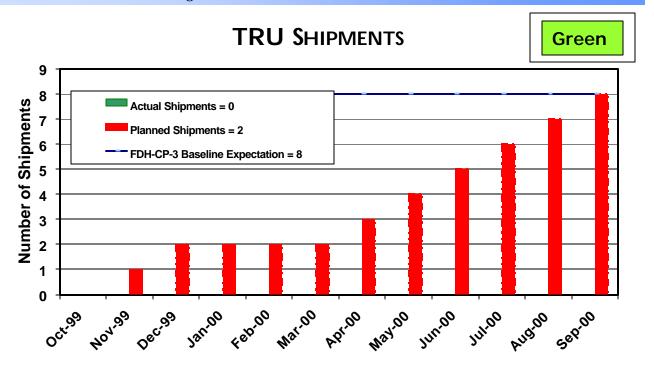
**ACTION PLANS:** Reduced to yellow this month due to being significantly behind schedule. Corrective actions are in place with the performing subcontractor to completely recover schedule (additional personnel assigned).



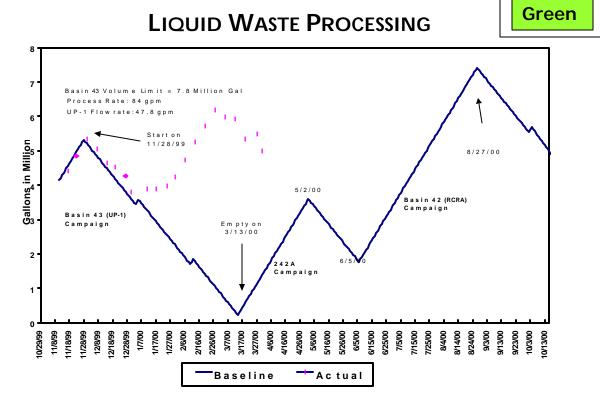
**Action Plans:** On track. Retrieved 70 drums from the stack and designated 21 drums as TRU waste. The 49 remaining drums require assay before designation as TRU or low-level waste. The revised performance incentive (FDH-CP-3, Measure 1) has been finalized, and the new stretch goal for drums designated is 425.



Action Plans: Change/negotiation required pending CAO audit results.



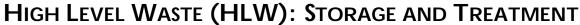
**Action Plans:** Change required based on additional CAO WIPP Certification requirements. Initial shipment delayed until spring 2000.

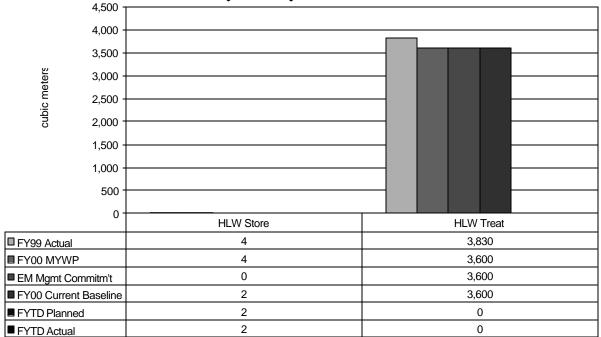


**Action Plans:** Production plans are being adjusted to incorporate incremental 242A Evaporator operations. Change negotiation required for the RCRA campaign.

### **KEY INTEGRATION ACTIVITIES**

- Preparing T Plant to receive Spent Nuclear Fuel K Basin sludge.
- Issuance of Records of Decision for LLW and MLLW is expected to affect Hanford's role in disposing of waste from other sites. Define Hanford's role as one of the identified LLW/MLLW disposal sites for the Complex working with DOE-RL, DOE-HQ, WDOE and other Sites.
- Support continued for UP-1 Groundwater treatment with BHI and increased RPP evaporator feed volumes.
- Support River Corridor Project in cleanup and removal of waste from 324 and 327 buildings.
- Support DOE-RL declaration of Readiness-to-Proceed in support of the Office of River Protection (ORP) Privatization contract.
- Working with PNNL, EM 50 and Mixed Waste Focus Area (MWFA) to obtain funding in support of mixed waste processing.
- Participated in the DOE Order 435.1 ("Radioactive Waste Management") workshop with other DOE and Contractor site representatives to share issues, lessons learned, and paths forward in complying with the Order.
- Continue to work with DOE- RL, -Oakland, and -Ohio to support resolution of TRU small quantity site disposition issues.

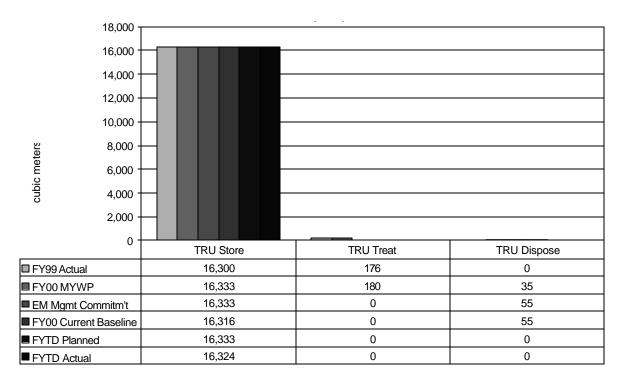




**Storage:** The HLW inventory of the Cesium (Cs) and Strontium 90 (Sr) capsules stored in the Waste Encapsulation and Storage Facility (WESF) pool cells has been adjusted to provide a consistent reporting basis. The previously reported 4 cubic meters was based on the capsule dimensions. However, the reported HLW inventory should included the volume that is HLW (i.e., the Cs and Sr salt), which is 2 cubic meters. The HLW Cs and Sr salt volume will be the basis for future reporting.

**Treatment:** No treatment planned this quarter. The evaporator campaign for treatment of high-level tank waste for the year is scheduled to be completed in May.

## TRANSURANIC (TRU) WASTE: STORAGE, TREATMENT AND DISPOSAL

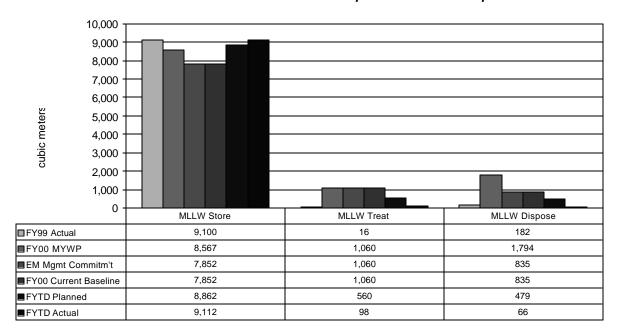


**Storage:** Storage continues to be provided for existing and newly generated TRU waste. The current volume of TRU in storage is within 10% of the planned amount.

**Treatment:** Based on DOE-HQ guidance, TRU processing at WRAP does not meet the revised TRU treatment definition. Therefore, TRU treatment volumes previously identified in the FY00 MYWP have been set to zero.

**Disposal:** None scheduled this period.

# MIXED LOW LEVEL WASTE: STORAGE, TREATMENT, AND DISPOSAL

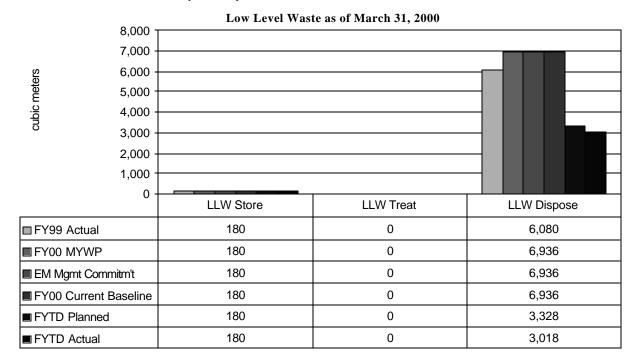


**Storage:** Storage continues to be provided for existing and newly generated MLLW waste. The current volume of MLLW in storage is within 10% of the planned amount.

**Treatment:** Allied Technology Group (ATG) is behind in delivering acceptance paperwork to FH, thus there is a backlog of waste awaiting treatment acceptance from ATG. ATG states that they will recover the schedule by June 2000.

**Disposal:** Correction to first quarter disposed quantity: There was no disposal of MLLW for the first quarter. The 182 cubic meters reported was erroneously carried over from FY1999. There were 66 cubic meters disposed of during the second quarter. Planned disposal quantity estimates after treatment/repackaging were reduced by 38 percent, which accounts for 81 cubic meters of the lower disposal rate. The remaining difference is due to the slip in waste treatment acceptance noted above.

# LOW LEVEL WASTE (LLW): STORAGE, TREATMENT, AND DISPOSAL



**Storage:** Storage remains unchanged for LLW not suitable for disposal. Contracting for commercial treatment of this waste is planned for FY2007.

**Treatment:** No treatment of LLW is planned until after FY2006 when a treatment alternative has been selected. All newly generated LLW receipts are prepared and packaged to the waste acceptance criteria for disposal of LLW in the burial grounds and no further treatment is required.

**Disposal:** Shipments are now being received from Argonne National Laboratory and Battelle Columbus and disposal is within 10% of the plan amount.